Maine's Knowledge-based Economy Development Strategy















30 & 1000 A Progress Report

30 & 1000 is not a static goal, but a moving target.

In 2001, the Maine State Planning Office published "30 and 1000: How to Build a Knowledge Based Economy in Maine and Raise Incomes to the National Average by 2010." A wordy title, but a simple idea: by increasing the percentage of Maine adults with 4-year college degrees to 30%, and raising the amount spent on Research and Development (R&D) to \$1000 per employed worker, Maine's per capita income would rise to the national average or higher. Thus, the 30&1000 strategy was born.

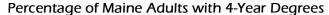
The 30&1000 strategy was predicated on the strong correlation between states with above average income levels and their corresponding high rates of adults with 4-year degrees and spending on R&D (by all parties, from all sources). Conversely, states which scored below average in these categories consistently ranked near the bottom in in-

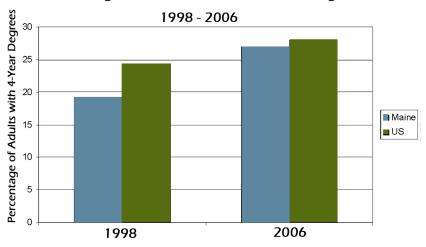
come levels. At the time of original publication, Maine fared better than only a few states in educational attainment and R&D expenditures, and was in the bottom third for per capita income.

Since the 30&1000 strategy was conceived, Maine has increased the percentage of adults with 4-year degrees and R&D spending has improved. Of course other states have made progress too. As education and R&D spending in other states rise, so do the benchmarks needed to achieve average national income levels. For this reason, 30&1000 is not a static goal, but a moving target.

The purpose of this report is to update the 30&1000 analysis and set new benchmarks for the percentage of 4-year degrees and R&D expenditures per employed worker that would be needed today for Maine to reach the current national average per capita income.

Progress Made Towards 30 & 1000

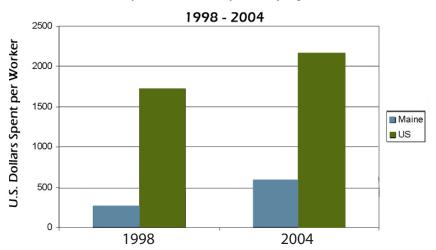




Percentage of Maine's Population with 4-Year Degrees

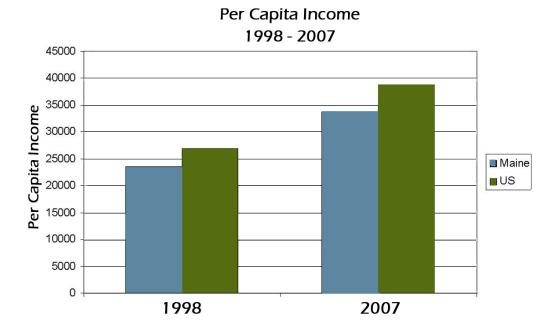
- From 1998 through 2006, the percentage of Maine's population over age 25 with a bachelor degree or higher increased from 19.2% to 26.9%. ¹
- This 40% increase, or about 4% each year, puts Maine 24th among the states, a significant improvement over the 1998 ranking of 46th.
- This rate of change is well above increases nationally and for New England (14.8% and 24.3% respectively).
- However, Maine's percentage of adults with 4-year degrees is still slightly below the national (weighted) average of 28.0% and well below the New England average of 36.3%.

Dollars Spent on R & D per Employed Worker



Expenditures on R & D

- From 1998 to 2004, R&D expenditures per employed worker in Maine increased 131%, from \$254 per worker in 1998 to \$587 per worker in 2004. ^{2,3}
- Adjusting for inflation, this is a solid increase of 100%, or about 12% per year.
- Maine is now ranked 42nd, up from 48th.
- Although this rate of improvement is impressive, and well above the national rate of increase, \$587 per worker is still less than half of the median state's R&D expenditure per worker, and well below the national average of \$2155 per worker or the New England average of \$2917.
- Considering R&D as a percentage of Gross State Product (GSP), total spending on R&D dollars in Maine increased to 0.89% of GSP, up from less than 0.5%. Maine is now ranked 40th among states. (Nationally, R&D expenditures remained relatively constant, at just under 2.6% of GDP, adjusted for inflation.)



Per Capita Income

- Maine's per capita income increased from \$23,596 in 1998 to \$33,722 in 2007⁴, and remained 35th in the nation.
- This is well below the national average of \$38,611 and the New England average of \$46,948.
- In real terms, Maine's per capita income increased 12.4%, or 1.3% per year above the rate of inflation.
- This is comparable to a12.9% rate of change for the nation as a whole, but well below the New England rate of change of 16.5%.
- Maine's per capita income as a percentage of national per capita income stayed relatively constant, at about 87%, but fell as a percentage of New England income, from 74.5% to 71.8%.

Progress Summary

	Level in 1998	Level in Year with Most Recent Data	Percent Change Between Years
Maine Residents with 4-Year Degrees	19.2%	26.9% (2006)	+40%
R & D per worker ⁵	\$254	\$587 (2004)	+131%
Per Capita Income ⁵	\$23,596	\$33,722 (2007)	+43%

	Ranking in 1998 Among US States	Ranking in Year with Most Recent Data	Ranking Change Between Years
Maine Residents with 4-Year Degrees	46th	24th (2006)	+22
R & D per worker	48th	42nd (2004)	+6
Per Capita Income	35th	35th (2007)	0



33% of adults with 4-year degrees and \$1800 per worker spent on R&D produces \$38,611 per capita income.

Additional Resources

Publications are available at:

www.maine.gov/spo/economics

- 30 and 1000 Strategy: How To Build A Knowledge-based Economy in Maine and Raise Incomes to the National Average
 By 2010 (November 2001)
- <u>30 & 1000 Progress Report</u> (March 2003)

For further assistance please contact:

Michael J. LeVert

Economist
Maine State Planning Office
38 State House Station
Augusta, ME 04333
(207)287-1461
michael.levert@maine.gov

New Targets

SPO updated the original 30&1000 model with recent data. This new model showed that achieving the 30&1000 targets would no longer be enough to reach today's national average per capita income. In other words, as educational attainment and R&D spending in other states have improved, the targets have moved.

The new model suggests that, in order for Maine to reach the national average for per capita income, the percentage of adults with 4-year degrees must rise to 33%. And the level of R&D funding per employed worker must increase to \$1800.

In Short, 30&1000 Has Now Become 33&1800.

While "33&1800" does not roll off the tongue as easily as "30&1000", it still provides a familiar and simple message: based on the experiences of other states, increasing the number of Maine's adults with 4-year college degrees to 33%, and increasing the amount spent on Research and Development to \$1800 per worker, could raise Maine's per capita income to the national average or higher. 33% of adults with 4-year degrees and \$1800 per worker spent on R&D produces \$38,611 per capita income.⁶

In Conclusion

These results reinforce the need for continued investment in Maine's educational and research infrastructure. Several recent developments are helping to make that happen.

Degree enrollment in Maine's Community College System increased 55% between 2002 and 2007, and the number of community college students transferring into the state's public universities increased 50%. ⁷

In November 2007, Maine voters approved a \$50 million bond for research and development, and \$42 million for renovation and construction at Maine's universities and community colleges. Those funds will be matched by an additional \$63 million in federal and other funds.

Building upon these investments will require focus and discipline. Within available resources, the state will need to continue streamlining government to make sure that public dollars are used as efficiently as possible, and in ways that will help expand economic opportunities for all Maine people.

Notes and References

- 1. U.S. Census Bureau, Current Population Survey, 2006, Annual and Economic Supplement; released 3/15/07
- 2. National Science Foundation, Division of Science Resources Statistics. 2007. National Patterns of R&D Resources: 2006 Data Update. NSF 07-331; US Bureau of Labor Statistics, Local Area Unemployment Statistics; released 3/28/08; US Bureau of Economic Analysis, Regional Economic Accounts, Gross Domestic Product by State; released 6/7/07.
- 3. The latest data available is from 2004. Please note that 1998 levels and rankings have been revised and may not match original 30&1000 report.
- 4. US Bureau of Economic Analysis, Regional Economic Accounts, State Personal income; released 3/26/08; Please note: income data for 2007 is preliminary and subject to revision.
- 5. Not adjusted for inflation
- 6. The actual numbers derived from a regression analysis are: 33.1% and \$1846 produce \$38,611 of income. \$38,611 is the 2007 United States per capita income.
- 7. Maine Community College System, "2007-08 Fact Sheet," November 2007, http://www.mccs.me.edu/press/pdf/factsheet.pdf (April 14, 2008)